



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,932	11/13/2003	Chunqiang Tang	200308654-1	6564

22879 7590 08/23/2006

HEWLETT PACKARD COMPANY  
P O BOX 272400, 3404 E. HARMONY ROAD  
INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

EXAMINER

PONIKIEWSKI, TOMASZ

ART UNIT	PAPER NUMBER
----------	--------------

2165

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/705,932	<b>Applicant(s)</b> TANG ET AL.	
	<b>Examiner</b> Tomasz Ponikiewski	<b>Art Unit</b> 2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 14-24 is/are rejected.
- 7) ☒ Claim(s) 5-13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### **DETAILED ACTION**

1. Claims 1-24 are pending.

#### ***Claim Objections***

2. Claims 4-5, 17, 21 and 24 are objected to because of the following informalities:

Claims 4, 17 and 21 recite, "can be" in line 2. The recitation presents a choice and the statement following the recitation does not need to actually happen.

Claim 5 recites the word "for" in the claims. It indicates intended use and as such does not carry patentable weight. The word could be changed to recite "to". The limitations following the phrase "for" describes only intended use but not necessarily required functionality of the claim. Limitations following the phrase "for" do not carry patentable weight, which cause the claims to appear as a series of non-functional descriptive material/data without any functional relation with each other. Applicant is required to amend the claim so that the claim limitations are recited in a definite form. For example, claim 5 recites "network for storing" should be "network to store" or "network that stores".

Claims 5 and 24 are objected to because of the following informalities: the recitation of "such that" on line 8 indicate intended use and should be changed to "which" or "wherein". Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1, 14, and 18-21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1 and 14 do not specify an output at the end of the claim. No output is presented or stored for subsequent use. It is unclear what the end result of the steps of the claims is.

Claims 18-21 are not limited to tangible embodiments. In view of applicant's disclosure, specification page 32, lines 20-21, the medium is not limited to tangible embodiments. As such, the claim is not limited to statutory subject matter and is therefore non-statutory.

To overcome this type of 101 rejection the claims need to be amended to include only the physical computer media and not a signal-bearing media or other intangible or non-functional media. For this specification, signal-bearing media may not be statutory as it may include medium that is not statutory. Claims should be amended to recite "computer storage medium".

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 14, 22 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 14 recite "for executing a search" in the preamble. The body of the claim never actually executes a search. There is no nexus between preamble and body of claim and it does not achieve the intended use of executing a search as recited in preamble.

Claims 22 and 24 all recite, "operable to". Operating does not mean that the step is being accomplished. It suggests a capability but not necessarily taking place. It should be deleted or amended to recite definite language i.e. "configured to".

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

Art Unit: 2165

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-4, and 12-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Mohan et al. (US 2005/0108368 A1)

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

As per claims 1, 14 and 18 Mohan et al. is directed to executing a search in a peer-to-peer system, the method comprising:

receiving a query at a destination node (page 2, paragraph 0021, lines 1-3);

receiving samples from a first set of nodes proximally located to the destination node in an overlay network for the peer-to-peer system, the samples associated with information stored at the proximally located nodes (page 5, paragraph 0052, lines 2-6);  
and

identifying, based on the samples received from the first set of nodes, a first node of the first set of nodes likely storing information associated with objects stored in the peer-to-peer system that are relevant to the query (page 2, paragraph 0022, second column, lines 4-5).

As per claims 2, 15 and 19 Mohan et al. is directed further comprising:  
comparing the query to information stored in the first node; wherein the information stored in the first node is associated with objects stored in the peer-to-peer network (page 2, paragraph 0022, second column, lines 6-7); and  
generating search results including information stored in the first node associated with objects relevant to the query based on the comparison of the query to the information stored in the first node (page 5, paragraph 0053, lines 7-9).

As per claims 3, 16 and 20 Mohan et al. is directed to further comprising:  
determining whether a quit threshold has been reached (page 5, paragraph 0059, lines 1-3);  
transmitting the search results to an initiator of the query in response to the quit threshold being reached (page 5, paragraph 0060, lines 4-6); and  
performing the following steps in response to the quit threshold not being reached:

identifying a second node likely storing information associated with objects stored in the peer-to-peer network that are relevant to the query based on samples received from a second set of nodes including the second node, wherein the second set of nodes are nodes proximally located to the first node in the overlay network (page 5, paragraph 0058); and

adding information stored in the second node to the search results; the added information being associated with objects that are relevant to the query (page 5, paragraph 0060, lines 4-6).

As per claims 4, 17 and 21 Mohan et al. is directed to wherein the quit threshold is associated with at least one of hops in the overlay network and whether the search results can be improved by adding information to the search results from the second node (page 5, paragraph 0062, lines 4-8).

As per claim 12 Mohan et al. is directed to wherein the first set of nodes are neighbor nodes to the destination node in the overlay network (page 5, paragraph 0052, lines 2-6).

As per claim 13 Mohan et al. is directed to wherein the second set of nodes are neighbor nodes to the first node in the overlay network (page 5, paragraph 0052, lines 2-6).

As per claim 22 Mohan et al. is directed to a peer-to-peer system comprising:  
a plurality of nodes in the system operating as a search engine operable to execute a query received by the search engine (page 1, paragraph 0008, lines 1-3);  
an overlay network implemented by the plurality of nodes (page 5, paragraph 0052, lines 2-6);



a plurality of indices stored at the plurality of nodes, each index including at least one semantic vector for an object (figure 3; page 2, paragraph 0018, lines 1-2, wherein "semantic vector" could mean "bit-vector"; page 4, paragraph 0048, lines 35-8);

wherein a first node in the search engine is operable to receive samples from nodes proximally located to the first node in the overlay network, the first node utilizing the samples to identify an index of one of the other nodes to search in response to receiving the query (page 2, paragraph 0022).

As per claim 23 Mohan et al. is directed to wherein similar semantic vectors are stored at nodes proximally located in the overlay network (page 2, paragraph 0022, wherein Bloom-filter can be represented by a vector).

As per claim 24 Mohan et al. is directed to wherein the first node is located in a region in the overlay network and the first node is operable to store indices from nodes in the region, such that the first node is operable to search a plurality of indices likely to include information relevant to the query without forwarding the query to other nodes in the region (page 4, paragraph 0040).

***Allowable Subject Matter***

9. Claims 5-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dumais et al. (US 6,192,360 B1) teaches vectors and distances.

White (US 2005/0021758 A1) teaches searching peer-to-peer network.

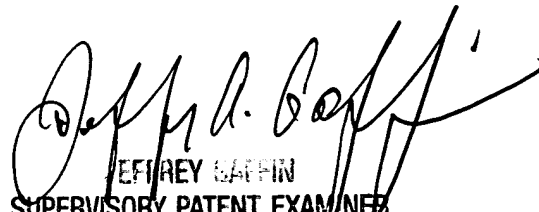
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tomasz Ponikiewski whose telephone number is (571)272-1721. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin can be reached on (571)272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 2165

Tomasz Ponikiewski  
August 18, 2006

  
JEFFREY GAFFIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100